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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SANDERS, ALLYSON N

ART UNIT PAPER NUMBER

2876

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/033,735

Applicant(s)

MONDIE, GEORGE R.

Examiner

Allyson N Sanders

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 and 7. 6) ☐ Other:

DETAILED ACTION

Priority

1. This application claims priority of U.S. Provisional Patent Application Serial No. 60/258,986, filed December 29, 2000.

Claim Objections

2. Claims 1, 2, 19, and 20 are objected to because of the following informalities:

Re claim 1, line 5: replace "a image" with --an image--.

Re claim 2, line 1: replace "data base" with --data base--.

Re claim 19, line 2: replace "dichrotic ink" with --dichroic ink--.

Re claim 20, line 3: replace "the surface" with --a surface--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3, 4-6, 9, 10, and 11-15 are rejected under 35 U.S.C. 102(e) as being anticipated by O'Neill et al (6,024,455).

O'Neill et al teaches the following in regards to claims 1, 3, 4-6, 9, 10, and 11-15.

Regarding claim 1 a method for identifying articles comprising the steps of:
labeling the articles with a light polarizing material, the light polarizing material forming a machine readable indicia including a code for automated identification of the article, the light polarizing material being applied over a second material, the second material reflecting light through the light polarizing material to create an image from which the machine readable indicia may be reproduced by filtering the reflected light to produce a plurality of images and comparing the images is disclosed.

"It is known from U.S. Pat. No. 5,353,154 (Lutz et al.) to print indicia on at least one surface of a reflective polymeric body to illuminate information upon exposure to a back light source and to conceal such information when not exposed to light. The reflective polymeric body is provided with a first and second diverse polymeric material arranged in substantially parallel alternating layers, and a sufficient number of layers is provided such that the body reflects at least 40% of light impinging on a first major surface thereof while transmitting at least 5% of light directed through a second major surface thereof." (Col. 1, lines 45-55).

"Disclosed herein is a reflective article which has a multilayer film covering a patterned retroreflective layer. The multilayer film preferably includes alternating layers of at least a first and second polymer, the alternating layers being configured to exhibit a relatively high reflectance for normally incident light within a first spectral range and a relatively low reflectance for normally incident light within a second spectral range. In one embodiment, the first spectral range is approximately coextensive with the visible

Art Unit: 2876

spectrum, and the second spectral range includes a transmission window of 15% or less fractional bandwidth. Multilayer polymeric film constructions are disclosed which achieve sharper spectral transitions than previously attainable." (Col. 2, lines 33-47).

"The patterned retroreflective layer can include a separate (optional) indicia layer covering a retroreflective substrate. In one embodiment, the indicia layer includes portions that preferentially transmit selected wavelengths of light. This embodiment can utilize either a narrowband or a wideband transmission window for the second spectral range." (Col. 2, lines 53-58).

"The articles described herein are ordinarily configured as sheetings which can be applied to a given object or substrate and which incorporate various combinations of a multilayer films and patterned retroreflective layers. The articles are generally single-sided optically. That is, one side (designated the front side) is generally adapted to both receive incident light from a source and emit reflected or retroreflected light toward a detector (such as the eye of an observer), and the other side (designated the rear side) is generally adapted for application to an object such as by an adhesive layer. The front side faces the light source as well as the detector." (Col. 4, lines 10-20).

"FIG. 1 is an exploded view of an article 10 having an information-containing indicia layer 12 sandwiched between a top reflective layer 14 and a bottom retroreflective layer 16. Indicia layer 12 is shown bearing a bar code, but it can also contain printed alphanumeric data, line drawings, half-tone images, and any other information-conveying pattern. The pattern is defined by opaque patterned regions 12a in an otherwise transparent layer, or vice versa. Such opaque regions can comprise

known pigments such as inks. The regions can alternately comprise areas which diffusely reflect or otherwise scatter light rather than absorb light, or known dyes that absorb at some wavelengths and transmit at other wavelengths. It is desired, however, to conceal or at least obscure such pattern except under certain viewing conditions. Reflective layer 14 is provided for that purpose." (Col. 4, lines 35-49).

"Layer 14 comprises a multilayer polymeric film having a percent reflectance and transmission which are substantially complementary (i.e., absorption is preferably low or negligible) for wavelengths of interest, and which are functions of the refractive indices and thicknesses of the constituent polymeric layers, as well as of the orientation and polarization of incident light. In a preferred embodiment layer 14 has a high reflectance throughout most of the visible spectrum for normally incident light so that in ambient lighting conditions the front surface of article 10 has a shiny mirror-like appearance as depicted in FIG. 2A." (Col. 5, lines 1-11).

"Layer 14 also preferably has a narrow spectral band of relatively high transmission (and relatively low reflectance) so that for light within such narrow band the information-bearing pattern is detectable through the front surface of the article as depicted in FIG. 2B, at least for certain viewing geometries. A preferred layer 14 will have maximum in-band transmission for greater visibility of the pattern, while keeping the spectral width of the band as narrow as possible so that the pattern is not readily noticeable amidst ambient reflections." (Col. 5, lines 15-24).

"Retroreflective layer 16 makes detection of the concealed pattern possible only at selected observation positions relative to a source of incident light. Where layer 16

Art Unit: 2876

comprises conventional cube corner or beaded retroreflective sheeting, detection of the pattern is best at small observation angles, i.e. for a detector positioned close to the light source." (Col. 5, lines 35-40).

"The pattern printed on indicia layer 12 is thus not ordinarily visible in ambient lighting conditions, but becomes visible if the observer is positioned sufficiently close to a directed light source such that retroreflected light is apparent. Where the article 10 is applied to clothing it will exhibit a shiny mirror-like finish in daylight but will reveal the underlying pattern, which may for example be a manufacturer's logo or a waning message, to vehicle drivers at night." (Col. 6, lines 27-35).

"Light transmitted through the indicia layer is reflected by a rear retroreflecting layer (42 in FIG. 4C; 44 in FIG. 4D) and transmitted back through indicia layer 40 and multilayer film 36 as a second reflected light beam 46. Reflected light 46 carries the patterned information contained in indicia layer 40 whereas specularly reflected light 38 does not. Like the embodiment of FIG. 3, the reflected light carrying the patterned information is angularly displaced from the specularly reflected light." (Col. 6 and 7, lines 62-3).

"Modifications of the reflective/retroreflective articles discussed above can be made which make use of the spectral shift of a narrow bandwidth transmission window as a function of entrance angle. In one such modification, the patterned regions (e.g. 12a in layer 12 of FIGS. 1 and 3) in the indicia layer can comprise conventional inks, dyes, or other substances which are substantially opaque to some wavelengths but transparent to others." (Col. 21, lines 9-16).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 7, 8, 16-18, and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill et al in view of O'Callaghan et al (6,311,982).

O'Neill et al's teachings are discussed above. O'Neill et al fails to teach the following: utilizing a database including a plurality of codes, generating an electronic image from each of the filtered beams with a detector and to reproduce an image corresponding to the indicia, and the article being a mail piece.

O'Callaghan et al teaches the following in regards to claims 2, 7, 8, and 16-18:

"The scanned image is processed by identifying the address block on the mail piece, reading the address, and verifying the address information. The system registers the corresponding barcode value to the file, reads the stamp value and stores its marking, and scans the barcode in detail to ensure that the print quality meets USPS specifications. The system identifies the existence, if any, of a postage meter imprint and the value of postage it represents, and the existence and identification of a permit imprint. The printed bar code value and quality assessment are also stored in the file for the associated mailpiece. At this point, the individual mailpiece file includes the ID number that has been printed on the mailpiece by the ink jet printer, the weight, stamp value, any existing endorsement, the address barcode value, the printed barcode value,

Art Unit: 2876

and the quality of the barcode /ZIP code. The system identifies and verifies the accuracy of the printed barcode against the results of an address search within its address data base, and verifies that such aspects of the mail as postage paid, weight, etc., are consistent with the information provided by the mailer." (Col. 5, lines 4-23)

In view of O'Callaghan et al's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use the method for identifying articles taught by O'Neill et al in conjunction with the method of verifying articles containing indicia thereon taught by O'Callaghan et al. O'Neill et al teaches a method which involves using a light polarizing material and forming a machine readable indicia including a code for automated identification of the article. Although O'Callaghan et al does not teach using polarized material, a method of identifying articles via a code is disclosed. This method is what is lacking in the prior art taught by O'Neill. O'Neill et al teaches a detector, however fails to specifically teach scanning the code and creating an image. O'Callaghan et al does teach scanning and creating an image. Scanning an image is a well known method in the art and one would be motivated to use the method in order to analysis the code. Additionally, a database is not taught by O'Neill. O'Callaghan et al does teach using a database. This is also a very well known method in the art and one would be motivated to have a database in order to keep records of the codes and information regarding the codes. O'Neill et al teaches using the polarized material labeling method on various items, however fails to specifically state using it on mail pieces. O'Callaghan et al teaches this limitation and O'Neill et al teaches the motivation by stating that the label could be used on many items.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill et al (6,024,455) in view of O'Callaghan et al (6,311,892) and in further view of Bloom (4,133,775).

O'Neill et al and O'Callaghan et al's teachings are discussed above.

O'Neill et al in combination with O'Callaghan et al's fails to specifically teach using a dichroic ink as a light polarizing material.

Bloom teaches the following:

"One of the most widely used polarizers today is H-sheet. It comprises a transparent sheet of polyvinyl alcohol stretched unidirectionally to orient the polymeric molecules and stained with an iodine ink to render said sheet dichroic. That component of a light beam whose electric vibrations run parallel to the stained and oriented molecules is absorbed while the other component vibrating perpendicular to the molecules passes through with very little absorption." (Col. 1, lines 55-63).

O'Neill et al teaches using ink, however fails to specifically disclose dichroic ink. As Bloom states, using dichroic ink is well known in the art.

2876

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Richley et al (6,542,083), Holt et al (6,446,865), Coderre et al (6,325,515), Fleming et al (6,350,034), Gurevich et al (5,744,815), Takada (5,237,164), and Orenstein et al (5,706,133).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson Sanders* whose telephone number is (703) 305-5779. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax phone number for this Group is (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [allyson.sanders@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published

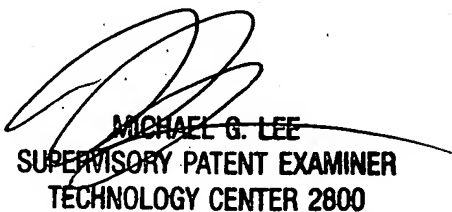
Art Unit: 2876

in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG

89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Allyson Sanders
Patent Examiner
Art Unit 2876
May 29, 2003



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